

### Amendment to the Claims

Please cancel claims 1-8, 15-19 and 26-33. Please amend claims 9-12, and 20-23.

Claims 13-14, 24-25, and 34-35 are unamended. Please add new claims 36-53.

1-8. (Cancelled).

9. (Currently Amended) An authoring tool ~~as in claim 1~~ that assists an author in building

an automated diagnostic system for a product, the authoring tool comprising:

a cause editor interface that allows an author to place, in a cause data structure,  
information pertaining to causes;

an action editor interface that allows an author to place, in an action data  
structure, information pertaining to actions that can be taken in response to the causes

wherein information pertaining to an action relates to the following categories:

~~name of the action;~~

~~explanation of the action;~~

~~causes solved by the action;~~

~~probabilities that the action solves specified causes.~~

~~an indication whether the action is for information gathering or is a potential~~  
~~solution;~~

~~costs of taking the action[[:], and[[:]]~~

~~trustworthiness of an answer to the action; and~~

a question editor interface that allows an author to place, in a question data  
structure, information pertaining to questions that can be asked a user of the product to  
help identify causes.

10. (Currently Amended) An authoring tool as in claim 9 wherein information pertaining to the action additionally relates to the following ~~eate~~categories:

an indication as to whether the action should be taken before other actions[[:]]; ~~an indication as to whether the action is a workaround;~~

~~additional actions included with the action;~~

~~whether the action can only be performed after a specified question has been answered; and,~~

~~whether the action cannot be performed after a specified question has been answered.~~

11. (Currently Amended) An authoring tool ~~as in claim 1~~ that assists an author in building an automated diagnostic system for a product, the authoring tool comprising:

a cause editor interface that allows an author to place, in a cause data structure, information pertaining to causes;

an action editor interface that allows an author to place, in an action data structure, information pertaining to actions that can be taken in response to the causes;  
and

a question editor interface that allows an author to place, in a question data structure, information pertaining to questions that can be asked a user of the product to help identify causes wherein information pertaining to a question relates to the following categories:

~~name of the question;~~

~~explanation of the question;~~

~~number of answers;~~

~~names of answers;~~

costs of finding an answer to the question; and

trustworthiness of an answer to the question.

12. (Currently Amended) An authoring tool as in claim 11 wherein information pertaining to the question additionally relates to the following ~~categories~~:

whether the question can only be performed after a specified question has been answered; and

whether the question cannot be performed after a specified question has been answered[[:]]

~~an indication as to whether the question should be asked before other questions;~~  
~~and,~~

~~whether the question is a symptom question or a general question.~~

13. (Original) An authoring tool as in claim 11 wherein information pertaining to the question particularly pertains to a symptom question and additionally relates to the following categories:

causes of a symptom;

probability of answers to the question conditional on causes that can cause the symptom; and,

probability of answers to the question conditional on no causes that can cause the symptom.

14. (Original) An authoring tool as in claim 11 wherein information pertaining to the question particularly pertains to a general question and additionally relates to the following categories:

prior probabilities of answers to the question;

causes that are affected by answers to the question; and,

probability of the affected causes conditional on each answer to the question.

15.-19. (Cancelled)

20. (Currently Amended) An authoring tool that assists an author in building an automated diagnostic system, the authoring tool comprising:

an action editor interface that allows an author to place, in an action data structure, information pertaining to actions that can be taken, wherein for an action the information relates to the following categories:

~~name of the action,~~

~~explanation of the action,~~

~~causes solved by the action,~~

~~probabilities that the action solves specified causes,~~

~~an indication whether the action is for information gathering or is a potential solution,~~

costs of taking the action, and

trustworthiness of an answer to the action[[],].

21. (Currently Amended) An authoring tool as in claim 20 wherein the information pertaining to the action additionally relates to the following categories:

an indication as to whether the action should be taken before other actions[[],]

~~an indication as to whether the action is a workaround;~~  
~~additional actions included with the action;~~  
~~whether the action can only be performed after a specified question has been~~  
~~answered; and~~  
~~whether the action cannot be performed after a specified question has been~~  
~~answered.~~

22. (Currently Amended) An authoring tool that assists an author in building an automated diagnostic system, the authoring tool comprising:

a question editor interface that allows an author to place, in a question data structure, information pertaining to questions that can be asked a user to help identify causes wherein for a question the information relates to the following ~~categories~~:

~~name of the question;~~  
~~explanation of the question;~~  
~~number of answers;~~  
~~names of answers;~~  
costs of finding an answer to the question, and  
trustworthiness of an answer to the question.

23. (Currently Amended) An authoring tool as in claim 22 wherein the information pertaining to the question additionally relates to the following ~~categories~~:

~~whether the question can only be performed after a specified question has been~~  
~~answered; and~~  
~~whether the question cannot be performed after a specified question has been~~  
~~answered[[:]]~~

~~an indication as to whether the question should be taken before other questions;~~  
and,

~~whether the question is a symptom question or a general question.~~

24. (Original) An authoring tool as in claim 22 wherein information pertaining to the question particularly pertains to a symptom question and additionally relates to the following categories:

causes of a symptom;

probability of answers to the question conditional on causes that can cause the symptom; and,

probability of answers to the question conditional on no causes that can cause the symptom.

25. (Original) An authoring tool as in claim 22 wherein information pertaining to the question particularly pertains to a general question and additionally relates to the following categories:

prior probabilities of answers to a question;

causes that are affected by answers to the question; and,

probability of the affected causes conditional on each answer to the question.

26.-33. (Cancelled)

34. (Original) An authoring tool that assists an author in building an automated selection system, the authoring tool comprising:

a selection editor interface that allows an author to place, in a selection data structure, information pertaining to selections;

an action editor interface that allows an author to place, in an action data structure, information pertaining to actions that can be taken in response to the selections; and

a question editor interface that allows an author to place, in a question data structure, information pertaining to questions that can be asked a user of the product to help identify selections.

35. (Original) An authoring tool that assists an author in building an automated decision support system, the authoring tool comprising:

a situation editor interface that allows an author to place, in a situation data structure, information pertaining to situations;

an action editor interface that allows an author to place, in an action data structure, information pertaining to actions that can be taken in response to the situations; and

a question editor interface that allows an author to place, in a question data structure, information pertaining to questions that can be asked a user of the product to help identify situations.

36. (New) An authoring tool as in claim 9 wherein information pertaining to the action additionally relates to the following:

an indication whether the action is for information-gathering or is a potential solution.

37. (New) An authoring tool as in claim 9 wherein information pertaining to the action additionally relates to the following:

probabilities that the action solves specified causes.

38. (New) An authoring tool as in claim 9 wherein information pertaining to the action additionally relates to the following:

name of the action;

explanation of the action; and

causes solved by the action.

39. (New) An authoring tool as in claim 9 wherein the information pertaining to the action additionally relates to the following:

an indication as to whether the action is a workaround.

40. (New) An authoring tool as in claim 9 wherein the information pertaining to the action additionally relates to the following:

whether the action can only be performed after a specified question has been answered; and,

whether the action cannot be performed after a specified question has been answered.

41. (New) An authoring tool as in claim 11 wherein the information pertaining to the question additionally relates to the following:

an indication as to whether the question should be asked before other questions.

42. (New) An authoring tool as in claim 11 wherein the information pertaining to the question additionally relates to the following:

whether the question is a symptom question or a general question.

43. (New) An authoring tool as in claim 11 wherein the information pertaining to the question additionally relates to the following:

name of the question;



explanation of the question; and

names of answers.

44. (New) An authoring tool as in claim 11 wherein the information pertaining to the question additionally relates to the following:

number of answers.

45. (New) An authoring tool as in claim 20 wherein the information pertaining to the action additionally relates to the following:

an indication whether the action is for information-gathering or is a potential solution.

46. (New) An authoring tool as in claim 20 wherein the information pertaining to the action additionally relates to the following:

probabilities that the action solves specified causes.

47. (New) An authoring tool as in claim 20 wherein the information pertaining to the action additionally relates to the following:

name of the action;

explanation of the action; and

causes solved by the action.

48. (New) An authoring tool as in claim 20 wherein the information pertaining to the action additionally relates to the following:

an indication as to whether the action is a workaround.

49. (New) An authoring tool as in claim 20 wherein the information pertaining to the action additionally relates to the following:

whether the action can only be performed after a specified question has been answered; and

whether the action cannot be performed after a specified question has been answered.

50. (New) An authoring tool as in claim 22 wherein for a question the information additionally relates to the following:

name of the question;

explanation of the question; and

names of answers.

51. (New) An authoring tool as in claim 22 wherein for a question the information additionally relates to the following:

number of answers.

52. (New) An authoring tool as in claim 22 wherein the information pertaining to the question additionally relates to the following:

an indication as to whether the question should be taken before other questions.

53. (New) An authoring tool as in claim 22 wherein the information pertaining to the question additionally relates to the following:

whether the question is a symptom question or a general question.

## **REMARKS**

A change of correspondence address is included with this Amendment B.